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FOLIOMYELITIS (INFANTILE PARALYSIS).

THE STATUS OF THE DISEASE IN NEW YORK CITY AND ELSEWHERE.

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The following notes are in continuation of previous reports. As before, the statements made must all be considered more or less provisional. As yet it is not possible to make final statements or to form definite conclusions with regard to the prevalence of poliomyelitis during the present year. Indeed, ultimately, corrections may be necessary in the statistical data supplied herewith and in previous reports. These corrections, however, will, in all likelihood, not be large enough to make any material difference with regard to the statements made.

In my last report (see Public Health Reports, Oct. 13, 1916, p. 2816), I stated that the epidemic in New York was sharply declining. Reference to Table 1 will serve to show that the epidemic in Greater New York is practically finished. As will be seen, the Borough of Manhattan continues to report a few cases, as do also, in a lesser degree, the Boroughs of Brooklyn, Queens, and The Bronx. The total number of cases for the entire city, however, it will be observed, has fallen to less than 40 per week, with a continued steady decline. The case-fatality rate of the epidemic shows very little change from my last report.

TABLE 1.—*Poliomyelitis—Cases and deaths—Greater New York and Boroughs.*[1]

	Cases.						Total deaths for the city.
	Total for the city.	Brooklyn.	Manhattan.	Richmond.	Queens.	Bronx.	
Week ended—							
Oct. 7	105	22	41	4	11	27	44
Oct. 14	72	10	31	0	13	18	29
Oct. 21	44	9	18	0	7	10	23
Oct. 28	37	6	20	0	4	7	11

[1] Continuation of Table 1 published in Public Health Reports Oct. 13, 1916, p. 2817.

The progress of the epidemic of poliomyelitis outside of New York City, but in the surrounding States, is shown in Table 2.

TABLE 2.—*Cases of poliomyelitis by weeks.*[1]

1916 population	5,602,800	4,670,575	2,948,017	1,244,479	3,719,156	614,315
Week ended.	New York City.	New York State (exclusive of New York City).	New Jersey.	Connecticut.	Massachusetts.	Rhode Island.
October, 1916.						
Total last report	9,100	3,468	3,671	760	988	157
Oct. 7	105	155	156	28	198	14
Oct. 14	72	129	75	11	167	15
Oct. 21	44	88	60	12	178	12
Oct. 28	37	66	37	10	122	8
Total	9,358	3,906	3,999	821	1,653	206

[1] Continuation of Table 2, published in Public Health Reports Oct. 13, 1916, p. 2818.

It will be observed that in Massachusetts, where the epidemic reached its crest later than in the other States, the disease is now steadily and sharply on the decline. At present there is little I can add concerning poliomyelitis in these States to what was said in my last report.

The general prevalence of poliomyelitis throughout the United States would seem to deserve a word of comment. In Table 3 I have assembled the reports from all over the United States, as published in Public Health Reports of October 27, 1916, pages 2986 and 2987, and arranged them in a somewhat different order. The incidence rate of the various States has been calculated per 100,000 population, and the States have been arranged in accordance with the incidence rate, beginning with the highest rate. The undue prevalence of this disease throughout the United States is quite strikingly shown in this arrangement. In addition to that, some idea may be gained as to the crest of the prevalence in the various States. This, however, is shown only by months. If it could be shown by weeks it would furnish very much more desirable information and allow us to fix more or less definitely the exact time of the highest prevalence of the disease in different localities. It probably may be safely asserted that in no State where poliomyelitis has prevailed to any extent was the crest of this prevalence reached later than September. It will be noticed, however, that returns from all of the States are incomplete for October, and in a few of them they are complete only to the end of September.

TABLE 3.—*Poliomyelitis—Cases and case rates by States—Geographic distribution.*

Group.	State.	July.	Aug.	Sept.	Oct.	Total cases.	Population, States.[1]	Case rate per 100,000.	Remarks.
1	New Jersey	640	2,114	957	247	3,958	2,948,017	134.25	To Oct. 25.
1	New York (exclusive of New York City.	517	1,527	1,064	238	3,346	[2]4,401,232	76	To Oct. 16.
1	Connecticut	165	367	274	51	857	1,244,479	68.89	To Oct. 21.
1	Massachusetts	107	253	623	611	1,594	3,719,156	42.88	Do.
2	Minnesota	142	373	186	133	834	2,279,603	36.6	Do.
1	Delaware	1	11	36	19	67	213,380	31.4	Do
1	Rhode Island	26	57	70	35	188	614,315	30.6	Do.
1	Pennsylvania	107	711	743	166	1,727	8,522,017	20.22	Do.
1	Maryland	10	64	100	97	271	1,362,807	19.9	To Oct. 22.
2	Montana	11	28	33	8	80	459,494	17.4	To Oct. 21.
1	Maine	0	26	46	37	109	772,489	14.13	Do.
2	Wisconsin	20	173	158	.....	351	2,500,350	14.03	To Sept. 30.
2	Michigan	51	163	166	48	428	3,054,854	14.01	To Oct. 14.
1	New Hampshire	7	16	31	3	57	442,506	12.89	To Oct. 19.
2	Illinois	76	339	257	97	769	6,152,257	12.5	To Oct. 21.
3	District of Columbia	8	18	6	5	37	363,980	10.16	To Oct. 17.
1	Vermont	1	8	23	3	35	363,699	9.623	To Oct. 7.
2	Iowa	30	82	66	36	204	2,220,321	9.183	To Oct. 21.
2	Ohio	94	168	138	.....	400	5,150,356	7.76	To Sept. 30.
3	South Carolina	20	58	24	10	112	1,625,475	6.895	To Oct. 17.
3	Virginia	24	44	45	22	135	2,192,019	6.155	To Oct. 21.
2	Indiana	27	38	65	31	161	2,816,817	5.718	Do.
3	Alabama	77	62	12	.....	151	2,332,608	5.649	To Sept. 25.
2	South Dakota	5	19	14	.....	38	698,509	5.44	Do.
3	Mississippi	57	31	14	3	105	1,951,674	5.38	To Oct. 14.
	Kansas	14	31	21	14	80	1,829,545	4.373	To Oct. 21.
	West Virginia	5	10	18	11	44	1,386,038	3.172	Do.
	North Dakota	0	2	16	.....	18	739,201	2.438	To Sept. 30.
	Arizona	2	2	2	.....	6	255,544	2.35	To Sept. 25.
	Wyoming	0	1	3	.....	4	179,559	2.228	To Sept. 30.
	Idaho	.....	4	3	2	9	428,586	2.1	To Oct. 7.
	Louisiana	19	6	5	2	32	1,829,130	1.75	To Oct. 21.
	Tennessee	18	21	0	.....	39	2,288,004	1.705	To Sept. 25.
	California	12	18	13	7	50	2,938,654	1.702	To Oct. 14.
	Oregon	.....	.....	3	11	14	835,741	1.677	Do.
	Kentucky	15	19	1	.....	35	2,379,639	1.47	To Sept. 28.
	Texas	22	25	16	.....	63	4,429,566	1.424	To Sept. 30.
	Washington	5	2	10	4	21	1,534,221	1.369	To Oct. 21.
	Utah	.....	5	.....	.....	5	434,083	1.152	To Aug. 31.
	Nebraska	1	7	6	.....	14	1,271,375	1.101	To Sept. 28.
	Oklahoma	12	10	2	.....	24	2,202,081	1.09	To Sept. 27.
	Colorado	1	2	4	3	10	962,060	1.04	To Oct. 27.
	Florida	4	3	1	.....	8	893,493	.896	To Sept. 25.
	Arkansas	5	1	0	.....	6	1,739,723	.345	Do.
	Missouri	4	3	4	.....	11	3,410,692	.3227	Do.
	Nevada	0	0	0	.....	0	106,734	0	To Sept. 24.
	New Mexico	0	0	0	.....	0	410,283	0	To Sept. 25.
	Georgia[3]	.....	.....	.....	.....	.....	.....	.....	.....
	North Carolina[3]	.....	.....	.....	.....	.....	.....	.....	.....

[1] Estimated as of July 1, 1916, United States Census Bureau.
[2] Population of New York City not included.
[3] Disease present, but the number of cases is not known.

Looking at these States in a general way, it will be noticed that the States with the highest prevalence are grouped in a somewhat peculiar manner. If we will somewhat arbitrarily take all of the States which show a prevalence rate of over 5, we will find that they include, roughly speaking, three groups of States (indicated in the table as 1, 2, and 3). These groups are the New England and North Atlantic States, another group stretching west along the Great Lakes, and a third group skirting the South Atlantic and Gulf coast. These groups of States are in a general way arranged like a large inverted "Y," the base being formed by the New England States, one arm stretching west along the Great Lakes, and the other south along the Atlantic

coast. The prevalence of poliomyelitis in these States is distinctly and markedly above that of the rest of the country.

The relation between these groups of States is at the present time largely conjectural. It is conceivable, however, that they may represent three distinct foci of prevalence which have joined. There are some data which might support such a view to a limited extent. We might reasonably conceive that one focus, starting in New York City and vicinity, has stretched north through New England, west along the Great Lakes, say as far as Ohio, and south, say as far as Maryland or Virginia. Another focus, beginning with Minnesota, has stretched east toward Ohio and also somewhat west. A third focus might be conceived as originating in Mississippi or Alabama and stretching north along the coast to Virginia or Maryland. We lack as yet any data of consequence to support this view. We know, however, that poliomyelitis appeared in epidemic form in Minnesota about the time it appeared in New York City and its vicinity and that these two foci were not connected with each other so far as can be determined. It will be noted in Table 3 that the crest of the prevalence of this disease in Alabama and Mississippi distinctly antedates that of States farther north, like Virginia and Maryland. We have no reports from Georgia and North Carolina, but we know that the disease prevails in these States. The prevalence of the disease in the inland States, like Kentucky and Tennessee, is distinctly lower than in those along the coast, with the exception of Florida. As stated, these comments are largely conjectural, but if the groups of States mentioned above are marked out on a map, their arrangement will be found to be quite striking, whatever its meaning may be. It has been suggested that in this connection main lines of travel might receive consideration.

PUBLIC HEALTH ADMINISTRATION.

CITY OF BIRMINGHAM AND COUNTY OF JEFFERSON, ALABAMA.

By CARROLL FOX, Surgeon, United States Public Health Service.

The following report gives the results of a study of health administration and organization in the city of Birmingham and the county of Jefferson. This study was carried on throughout a period of approximately three weeks.

The desirability of unifying the public-health systems of the city of Birmingham and the rest of the county of Jefferson soon became apparent, and the study was therefore made with that object in view.

Jefferson County has an area of 1,059 square miles and a population estimated at 103,999, of which 61,774 are white and 42,225 colored.